

Appl. No. 10/788,577
Amdt. Dated Nov. 9, 2005
Reply to Office Action of August 9, 2005

Amendments to the Specification:

Please replace paragraph [0005] with the following amended paragraph:

[0005] FIG 6 is a partially essential optical paths view of the liquid crystal display 1 in FIG 5. Light beams emitted from the light source 161 are converted to planar light beams T when they are emitted out from the backlight module 16, and then are projected into the light polarizing absorption film 142. The planar light beams T are randomly polarized into two linear polarized light beams, an s-polarization component and a p-polarization component (denoted by arrows s and p shown in FIG 6). The polarization state of the s-polarization component is orthogonal to that of the p-polarization component. The light polarizing absorption film 142 has a polarization axis parallel to the s-polarization component, so that the s-polarization component of the planar light beams T can pass. The light polarizing absorption film 142 also has an absorption axis parallel to the p-polarization component, so that the p-polarization component of the planar light beams T is absorbed. Therefore, only half of the light beams T can pass through the light polarizing absorption film 142. The light energy of the light beams T is not effectively used due to the light polarizing absorption film 142 absorbs half of the light beams T, and the brightness of the liquid crystal display 1 is low.

Please replace paragraph [0021] with the following amended paragraph:

[0021] FIG 8 is a partially essential light paths view of the liquid crystal display in FIG 7[[:]].

Please replace paragraph [0025] with the following amended paragraph:

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[0025] FIG 2 is a partial essential light paths view of the liquid crystal display in FIG 1. After passing through the light guide plate 362, ~~Light~~ light beams emitted from the light source 361 are randomly polarized into planar light beams T which is decomposed of an s-polarization component and a p-polarization component (denoted by arrows s and p). The s-polarization component is orthogonal to the p-polarization component. The reflective polarizing element 342 of the liquid crystal panel has a polarization axis parallel to the s-polarization component, so that the s-polarization component can pass. The reflective polarizing element 342 also has a reflection axis parallel to the p-polarization component, so that the p-polarization component is reflected to the quarter-wave plate 366.

Please replace paragraph [0026] with the following amended paragraph:

[0026] The quarter-wave plate 366 is an optical element made of mica, polyvinyl alcohol, or other components, which introduces a relative phase shift of $\Delta \phi = \pi / 2$ between the constituent orthogonal p-polarization component and s-polarization component of a wave. A phase shift of $\pi / 2$ will convert linear light to circular light when linear light at 45° to either principal axis is incident on the quarter-wave plate 366, and vice versa. Linear light incident parallel to either principal axis will be unaffected by the quarter-wave plate 366. Excluding these special circumstances, linear light will be converted to an elliptical light. Therefore, the reflected p-polarization component is converted to a first polarization component R, when it passes through the quarter-wave plate 366 a first time. The first polarization component R is converted—in to a second polarization component R' after being reflected by the reflector 365. The first polarization component R and the second polarization component R' are linear, circular or elliptical polarization component, depending on the incident angle of the reflected p-polarization component. Then, the second

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polarization component R' is partially or all converted to a linear polarization component when it passes the quarter-wave plate 366. The linear polarization component has a polarization state orthogonal to the reflected p-polarization component, i.e., the reflected p-polarization component is converted to an s-polarization component after passing the quarter-wave plate 366 twice.